

What is claimed is:

1. A lightweight decontaminable stretcher for transporting injured persons and persons exposed to hazardous materials, comprising:

a molded frame assembly having a first frame pole and a second frame pole  
5 interconnected by a spreader bar for maintaining said first and second frame poles in a laterally spaced arrangement;

a bed member carried by said first and second frame poles adapted for receiving and supporting a person between said frame poles; and,

said molded frame assembly constructed of a composite of 50% to 85% by  
10 weight of a polyamide resin containing 15% to 50% fiberglass by weight to resist hazardous materials and allow for decontamination of said frame assembly.

2. The stretcher of claim 1 wherein said polyamide resin is selected from the group consisting of polycaprolactam (nylon 6), polytetramethylene adipamide (nylon 4/6), polyhexamethylene adipamide (nylon 6/6), polyhexamethylene  
15 sebacamide (nylon 6/10), polyhexamethylene dodecamide (nylon 6/12), polyundecamethylene adipamide (nylon 11/6), polyundecalactam (nylon 11), polydodecalactam (nylon 12), polytrimethylhexamethylene terephthalamide (nylon TMHT), polyhexamethylene isophthalamide (nylon 6I), polynonanemethylene terephthalamide (9T), polyhexamethylene terephthalamide (6T), polybis (4-  
20 aminocyclohexyl)methane dodecamide (nylon PACM12), polybis(3-methylaminocyclohexyl)methane dodecamide (nylon dimethyl PACM12), polymethaxylylene adipamide (nylon MXD6) and polyundecamethylene hexahydroterephthalamide (nylon 11T(H)) and polyamide copolymers, and mixtures thereof.

3. The stretcher of claim 1 wherein said first frame pole and said second frame pole are constructed from a plurality of frame arms pivotally connected for moving between a folded configuration wherein said frame arms for each pole are generally stacked upon each other, and an unfolded configuration wherein said frame arms are aligned end to end in a common plane to form each of said frame poles.

4. The stretcher of claim 3 including a hinge pivotally connecting abutting ends of said frame arms, and a hinge support carried opposite said hinge interconnecting abutting ends of said frame arms when in said unfolded configuration, and said hinge support disengaging abutting ends of said frame arms to allow said frame arms to move to said folded configuration.

5. The stretcher of claim 4 wherein said hinge includes a first hinge portion carried by a distal end of a first frame arm, and a second hinge portion carried by an abutting distal end of a second frame arm; said first and second hinge portions have a plurality of spaced hinge projections forming a series of hinge slots; said hinge projections engaging said hinge slots of the abutting frame arm so that said hinge projections of said first and second frame arms overlap; and a pivot pin pivotally connecting overlapping hinge projections from said first and second hinge portion.

6. The stretcher of claim 5 wherein said hinge support includes a first support portion carried by said distal end of said first frame arm opposite said first hinge portion, and a second support portion carried by said abutting distal end of said second frame arm opposite said second hinge portion; said first and second

support portions have a plurality of spaced support projections forming a series of support slots; said support projections engaging said support slots of the abutting frame arm when in said unfolded configuration so that said support projections interconnect abutting ends of frame arms to resist twisting of said frame arms.

5           7.     The stretcher of claim 6 wherein each of said frame arms includes an interior cavity running the length of said frame arm, and at least one rib member molded into said frame arm protruding from an interior surface of said frame arm into said interior cavity and generally running the length of said interior cavity to restrict bending and twisting of said frame arm.

10          8.     The stretcher of claim 7 including at least one cross member molded into said frame arm extending through said interior cavity from said interior surface of said frame arm and generally running the length of said interior cavity to restrict bending and twisting of said frame arm.

            9.     A lightweight decontaminable stretcher for transporting injured persons  
15   and persons exposed to hazardous materials, comprising:

            a foldable molded frame assembly for carrying a bed member adapted to receive and support a person;

            a first frame pole and a second frame pole included in said frame assembly constructed from a plurality of frame arms;

20          a hinge pivotally connecting abutting ends of said frame arms for moving between a folded configuration and an unfolded configuration;

            a hinge support carried opposite said hinge for interconnecting abutting ends of said frame arms when in said unfolded configuration, and said hinge support

disengaging abutting ends of said frame arms to allow said frame arms to move to said folded configuration; and,

a spreader bar included in said frame assembly interconnecting said first and second frame poles.

5           10. The stretcher of claim 9 wherein said molded frame assembly is constructed of a composite of 50% to 85% by weight of a polyamide resin containing 15% to 50% fiberglass by weight to resist hazardous materials and allow for decontamination of said frame assembly.

10           11. The stretcher of claim 9 wherein said hinge includes a first hinge portion molded into a distal end of a first frame arm, and a second hinge portion molded into an abutting distal end of a second frame arm; said first and second hinge portions have a plurality of spaced hinge projections forming a series of hinge slots; said hinge projections engaging said hinge slots of the abutting frame arm so that said hinge projections of said first and second frame arms overlap; and a pivot  
15           pin pivotally connecting overlapping hinge projections from said first and second hinge portion.

20           12. The stretcher of claim 11 wherein said hinge support includes a first support portion molded into said distal end of said first frame arm opposite said first hinge portion, and a second support portion molded into said abutting distal end of said second frame arm opposite said second hinge portion; said first and second support portions have a plurality of spaced support projections forming a series of support slots; said support projections engaging said support slots of the abutting

frame arm when in said unfolded configuration so that said support projections interconnect abutting ends of frame arms to resist twisting of said frame arms.

13. The stretcher of claim 9 wherein each of said frame arms includes an interior cavity running the length of said frame arm, and at least one rib member  
5 molded into said frame arm protruding from an interior surface of said frame arm into said interior cavity and generally running the length of said interior cavity to restrict bending and twisting of said frame arm.

14. The stretcher of claim 9 wherein each of said frame arms includes an interior cavity running the length of said frame arm, and at least one cross member  
10 molded into said frame arm extending through said interior cavity from an interior surface of said frame arm and generally running the length of said interior cavity to restrict bending and twisting of said frame arm.

15. A lightweight decontaminable stretcher for transporting injured persons and persons exposed to hazardous materials, comprising:

15 a frame assembly having a first frame pole and a second frame pole interconnected by a spreader bar for maintaining said first and second frame poles in a laterally spaced arrangement;

a bed member carried by said first and second frame poles adapted for receiving and supporting a person between said frame poles;

20 said first and second frame poles having a hollow interior cavity to reduce weight; and,

at least one reinforcing member formed on an interior surface of said frame poles within said hollow interior cavity and generally running the length of said

hollow interior cavity to strengthen the rigidity of said frame poles to resist bending and twisting.

16. The stretcher of claim 15 wherein said reinforcing member includes a rib member molded into said frame pole protruding from an interior surface of said frame pole into said interior cavity and generally running the length of said interior cavity to restrict bending and twisting of said frame pole.

17. The stretcher of claim 15 wherein said at least one reinforcing member includes a cross member molded into said frame pole extending through said interior cavity from said interior surface of said frame pole and generally running the length of said interior cavity to restrict bending and twisting of said frame pole.

18. The stretcher of claim 15 including a plurality of reinforcing members comprising at least one rib member molded into said frame pole protruding from an interior surface of said frame pole into said interior cavity and generally running the length of said interior cavity to restrict bending and twisting of said frame pole, and at least one cross member molded into said frame pole extending through said interior cavity from said interior surface of said frame pole and generally running the length of said interior cavity to restrict bending and twisting of said frame pole.

19. The stretcher of claim 15 wherein said molded frame assembly is constructed of a composite of 50% to 85% by weight of a polyamide resin containing 15% to 50% fiberglass by weight to resist hazardous materials and allow for decontamination of said frame assembly.